

IN THE CLAIMS:

Please amend claims 1, 2, 7, 9, 10, 17, and 18 as follows.

1. (Currently Amended) A ~~traffic management~~ method comprising ~~in a telecommunication system, the method including:~~

dividing a time slot into a predetermined number of sub-blocks;[[,]]

defining an amount of available capacity for a non-real time use in a time slot;

defining a number of sub-blocks reserved by a real-time use in a time slot;

defining a number of sub-blocks reserved by non-real time use in a time slot;

defining a number of free sub-blocks in a time slot based on the sub-blocks reserved by the real-time use and the sub-blocks reserved by the non-real time use;

calculating a sub-block reservation rate for a time slot based on the number of free sub-blocks, the amount of available capacity for the non-real time use in the time slot and the number of sub-blocks in a time slot not reserved by real time use; and

averaging a sub-block reservation rate for a time slot to determine a down link sub-block reservation rate.

2. (Currently Amended) A ~~traffic management~~ method ~~in a telecommunication system, the method~~ comprising:

dividing a time slot into a predetermined number of sub-blocks;

defining an amount of available capacity for a non-real time use in a time slot;

defining a number of sub-blocks reserved by a real time use in a time slot;

defining a number of sub-blocks reserved by a non-real time use in a time slot;[[,]]

defining a number of free sub-blocks in a time slot based on the sub-blocks reserved by the real time use and the sub-blocks reserved by the non-real time use;[[,]]

calculating a sub-block reservation rate for a time slot based on the number of free sub-blocks, the amount of available capacity for the non-real time use in a time slot and the number of sub-blocks in a time slot not reserved by real time use;

averaging a sub-block reservation rate for a time slot to determine a down link sub-block reservation rate; and

directing a transmission in a telecommunication system to less loaded cells or timeslots.

3. (Original) The method of claim 1, wherein the amount of available capacity for the non-real time use in a time slot is defined by using the equation:

$$NRT_share_per_TSL^i = \max \left(0, 1 - \frac{\sum_{j=0}^{M^i} GBR_j^i}{R_{rb_est}^i} \right),$$

where

M = a number of real time users per timeslot having a guaranteed bit rate,

GBR means a guaranteed bit rate,

R_{rb_est} = average bit rate per radio block in a time slot,

i means a time slot of interest.

4. (Original) The method of claim 1, wherein the sub-block reservation rate for a time slot is defined by using the equation:

$$TBF_{reservationrate}^i = 1 - \frac{9 - TBF_{RT}^i - TBF_{NRT}^i}{\frac{1}{NRT_share_per_TSL^i} \cdot (9 - TBF_{RT}^i)},$$

where

TBF means temporary block flow,

RT means a real time user,

NRT means a non-real time user,

i means a time slot of interest,

$NRT_share_per_TSL^i$ is the amount of available capacity for non-real time use in a time slot.

5. (Original) The method of claim 1, wherein the averaging for determining a down link sub-block reservation rate is carried out by using the equation:

$$TBF_{reservationrateDL} = \frac{\sum_{i=0}^{TSL_{total}} TBF_{reservationrate}^i}{TSL_{total}},$$

where

TBF means temporary block flow,

TSL_{total} means the number of time slots reserved for non-real time use,

i means a time slot of interest.

6. (Original) The method of claim 1, wherein the averaging for determining a down link sub-block reservation rate is carried out by using the equation:

$$TBFreservationrateDL = \frac{\sum_{i=0}^{TSL_{total}} NRT_share_per_TSL^i \cdot TBFreservationrate^i}{\sum_{i=0}^{TSL_{total}} NRT_share_per_TSL^i} \quad \text{where}$$

TBF means temporary block flow,

TSL_{total} means the number of time slots reserved for non-real time use,

i means a time slot of interest.

$NRT_share_per_TSL^i$ is the amount of available capacity for non-real time use in a time slot.

7. (Currently Amended) The method of claim 1, wherein $[[.]]$ the sub-blocks comprise temporary block flow sub-blocks.

8. (Original) The method of claim 1, wherein the averaging is carried out for a group comprising time slots reserved for non-real time use in a cell

9. (Currently Amended) A network element comprising ~~means for~~:

means for dividing a time slot into a predetermined number of sub-blocks,

means for defining an amount of available capacity for a non-real time use in a time slot,

means for defining a number of sub-blocks reserved by a real time use in a time slot,

means for defining a number of sub-blocks reserved by a non-real time use in a time slot,

means for defining a number of free sub-blocks in a time slot based on sub-blocks reserved by the real time use and the sub-blocks reserved by the non-real time use,

means for calculating a sub-block reservation rate for a time slot based on the number of free sub-blocks, the amount of available capacity for the non-real time use in the time slot and the number of sub-blocks in a time slot not reserved by real time use; and

means for averaging a sub-block reservation rate for a time slot to determine a down link sub-block reservation rate.

10. (Currently Amended) A network element comprising ~~means for~~:

means for dividing a time slot into a predetermined number of sub-blocks,

means for defining an amount of available capacity for a non-real time use in a time slot,

means for defining a number of sub-blocks reserved by a real time use in a time slot,

means for defining a number of sub-blocks reserved by a non-real time use in a time slot,

means for defining a number of free sub-blocks in a time slot based on the sub-blocks reserved by the real time use and the sub-blocks reserved by the non-real time use,

means for calculating a sub-block reservation rate for a time slot based on the number of free sub-blocks, the amount of available capacity for the non-real time use in the time slot and the number of sub-blocks in a time slot not reserved by real time use,

means for averaging a sub-block reservation rate for a time slot to determine a down link sub-block reservation rate; and

means for directing a transmission in a telecommunication system to less loaded cells or timeslots.

11. (Original) The network element of claim 10, wherein the amount of available capacity for the non-real time use in the time slot is defined by using the equation:

$$NRT_share_per_TSL^i = \max \left(0, 1 - \frac{\sum_{j=0}^{M^i} GBR_j^i}{R_{rb_est}^i} \right),$$

where

M = a number of real time users per timeslot having a guaranteed bit rate,

GBR means a guaranteed bit rate,

R_{rb_est} = average bit rate per radio block in a time slot,

i means a time slot of interest.

12. (Original) The network element of claim 10, wherein the sub-block reservation rate for a time slot is defined by using the equation:

$$TBF_{reservationrate}^i = 1 - \frac{9 - TBF_{RT}^i - TBF_{NRT}^i}{\frac{1}{NRT_share_per_TSL^i} \cdot (9 - TBF_{RT}^i)},$$

where

TBF means temporary block flow,

RT means a real time user,

NRT means a non-real time user,

i means a time slot of interest,

$NRT_share_per_TSL^i$ is an amount of available capacity for non-real time use in a time slot.

13. (Original) The network element of claim 10, wherein the averaging for determining a down link sub-block reservation rate is carried out by using the equation:

$$TBFreservationrateDL = \frac{\sum_{i=0}^{TSL_{total}} TBFreservationrate^i}{TSL_{total}},$$

where

TBF means temporary block flow,

TSL_{total} means a number of time slots reserved for the non-real time use,

i means a time slot of interest.

14. (Original) The network element of claim 10, wherein the averaging for determining a down link sub-block reservation rate is carried out by using the equation:

$$TBFreservationrateDL = \frac{\sum_{i=0}^{TSL_{total}} NRT_share_per_TSL^i \cdot TBFreservationrate^i}{\sum_{i=0}^{TSL_{total}} NRT_share_per_TSL^i}$$

where

TBF means temporary block flow,

TSL_{total} means a number of time slots reserved for the non-real time use,

i means a time slot of interest.

$NRT_share_per_TSL^i$ is the amount of available capacity for the non-real time use in a time slot.

15. (Original) The network element of claim 10, wherein the sub-blocks comprise temporary block flow sub-blocks.

16. (Original) The network element of claim 10, wherein the averaging is carried out for a group comprising time slots reserved for non-real time use in a cell.

17. (Currently Amended) A network element configured to:

- divide a time slot into a predetermined number of sub-blocks;
- define an amount of available capacity for a non-real time use in a time slot;
- define a number of sub-blocks reserved by a real time use in a time slot;
- define a number of sub-blocks reserved by a non-real time use in a time slot;
- define a number of free sub-blocks in a time slot based on sub-blocks reserved by the real time use and the sub-blocks reserved by the non-real time use;
- calculate a sub-block reservation rate for a time slot based on the number of free sub-blocks the amount of available capacity for non-real time use in the time slot and the number of sub-blocks in a time slot not reserved by real time use[[,]]; and
- average a sub-block reservation rate for a time slot to get down link sub-block reservation rate.

18. (Currently Amended) A network element configured to:

- divide a time slot into a predetermined number of sub-blocks,
- define an amount of available capacity for a non-real time use in a time slot;
- define a number of sub-blocks reserved by real time use in a time slot,
- define a number of sub-blocks reserved by a non-real time use in a time slot;

define a number of free sub-blocks in a time slot based on sub-blocks reserved by the real time use and the sub-blocks reserved by the non-real time use;

calculate a sub-block reservation rate for a time slot based on the number of free sub-blocks, the amount of available capacity for the non-real time use and the number of sub-blocks in a time slot not reserved by real time use[[,]];

average a sub-block reservation rate for a time slot to determine a down link sub-block reservation rate; and

direct a transmission in a telecommunication system to less loaded cells or timeslots.